CLAIMS

1.   A method for determining a data rate for a data transmission over a communication channel in a wireless communication system, comprising:

identifying a set of parameters for the data transmission;

estimating one or more characteristics of the communication channel;

deriving a metric for an equivalent channel based on the set of parameters and the one or more estimated channel characteristics;

adjusting the metric to form an adjusted metric, wherein adjusting is done according to a back-off factor, the back-off factor designed to minimize Packet Error Rate (PER);

determining a threshold signal quality required for the equivalent channel to support a particular data rate;

comparing the adjusted metric to the threshold signal quality;

adjusting the threshold signal quality;

selecting a data rate in response; and

indicating whether or not the particular data rate is supported by the communication channel based on the metric and the threshold signal quality.

2.   The method of claim 1, wherein the metric is a function of Signal-to-Noise Ratio (SNR).

3.   The method of claim 1, wherein the adjusting the metric further comprises:

determining if a back-off factor is to be applied to the metric;

if the back-off factor is to be applied, adjusting the metric; and

if the back-off factor is not to be applied, retaining the metric.

4.   The method of claim 1, wherein the deriving the metric includes

determining an equivalent data rate for the equivalent channel based on a first function, the set of parameters, and the one or more estimated channel characteristics, and

wherein the metric is derived based on a second function, the equivalent data rate, and the particular modulation scheme.

5.   A receiver unit in a wireless communication system, comprising:

a channel estimator operative to derive estimates of one or more characteristics of a communication channel used for a data transmission;

a rate selector operative to receive channel estimates from the channel estimator and a set of parameters indicative of a particular rate for the data transmission, derive a metric for an equivalent channel, determine a threshold signal quality required for the equivalent channel to support the particular rate, and indicate whether or not the particular rate is supported by the communication channel based on the metric and the threshold signal quality; and

a metric adjuster operative to adjust the metric using a predetermined back-off factor.

6.   The receiver unit of claim 5, further comprising:

a decoder operative to provide a status of each received transmission for a particular packet of data; and

a controller operative to provide feedback information comprised of the particular rate and an indication of the packet status.

7.   An apparatus in a wireless communication system, comprising:

means for identifying a set of parameters for the data transmission;

means for estimating one or more characteristics of the communication channel;

means for deriving a metric for an equivalent channel based on the set of parameters and the one or more estimated channel characteristics;

means for adjusting the metric to form an adjusted metric, wherein adjusting is done according to a back-off factor, the back-off factor designed to minimize Packet Error Rate (PER);

means for determining a threshold signal quality required for the equivalent channel to support a particular data rate;

means for comparing the adjusted metric to the threshold signal quality;

means for adjusting the threshold signal quality;

means for selecting a data rate in response; and

means for indicating whether or not the particular data rate is supported by the communication channel based on the metric and the threshold signal quality.

8.   The apparatus of claim 7, further comprising:

means for determining an equivalent data rate for the equivalent channel based on a first function, the set of parameters, and the channel estimates, and

wherein the metric is derived based on a second function, the equivalent data rate, and a particular modulation scheme associated with the particular rate.

9.   The apparatus of claim 8, further comprising:

means for storing one or more tables for the first function.

10.   A method for determining a data rate for a data transmission over a communication channel in a wireless communication system, comprising:

estimating one or more characteristics of the communication channel;

deriving a metric for an equivalent channel based on the set of parameters and the one or more estimated channel characteristics;

adjusting the metric to form an adjusted metric, wherein adjusting is done according to a back-off factor, the back-off factor designed to minimize Packet Error Rate (PER);

determining a threshold signal quality required for the equivalent channel to support a particular data rate;

comparing the adjusted metric to the threshold signal quality; and

selecting a data rate in response to a result of comparing the adjusted metric to the threshold signal quality.

11.   The method as in claim 10, wherein the metric is Signal-to-Noise Ratio.

12.	The method as in claim 10, wherein adjusting the metric comprises:

determining if the back-off factor is to be applied to the metric;

applying the back-off factor according to determining if the back-off factor is to be applied to the metric.

13.	An apparatus for determining a data rate for a data transmission over a communication channel in a wireless communication system, comprising:

means for estimating one or more characteristics of the communication channel;

means for deriving a metric for an equivalent channel based on the set of parameters and the one or more estimated channel characteristics;

means for adjusting the metric to form an adjusted metric, wherein adjusting is done according to a back-off factor, the back-off factor designed to minimize Packet Error Rate (PER);

means for determining a threshold signal quality required for the equivalent channel to support a particular data rate;

means for comparing the adjusted metric to the threshold signal quality; and

means for selecting a data rate in response to a result of comparing the adjusted metric to the threshold signal quality.

14.	A computer program for determining a data rate for a data transmission over a communication channel in a wireless communication system, the computer program comprising:

a first set of instructions for estimating one or more characteristics of the communication channel;

a second set of instructions for deriving a metric for an equivalent channel based on the set of parameters and the one or more estimated channel characteristics;

a third set of instructions for adjusting the metric to form an adjusted metric, wherein adjusting is done according to a back-off factor, the back-off factor designed to minimize Packet Error Rate (PER);

a fourth set of instructions for determining a threshold signal quality required for the equivalent channel to support a particular data rate;

a fifth set of instructions for comparing the adjusted metric to the threshold signal quality; and

a sixth set of instructions for selecting a data rate in response to a result of comparing the adjusted metric to the threshold signal quality.